



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,397	11/24/2003	Christopher John Capece	3-12	4116

7590 02/08/2007  
Docket Administrator (Room 3J-219)  
Lucent Technologies Inc.  
101 Crawfords Corner Road  
Holmdel, NJ 07733-3030

EXAMINER
----------

PHU, SANH D

ART UNIT	PAPER NUMBER
----------	--------------

2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/720,397	<b>Applicant(s)</b> CAPECE ET AL.	
	<b>Examiner</b> Sanh D. Phu	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, 14-17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 4, 10-13 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This Office Action is responsive to the Response filed on 12/13/06.

Accordingly, claims 1-20 are currently pending.

### *Claim Objections*

2. Claim 9 is objected to because of the following informalities:

Claim 9 recites the limitation "the RF antenna". This limitation is lack of antecedent basis. It appears that phrase "The wireless transceiver of claim 7" on line 1 of the claim should be, and hereafter is treated as, --The wireless transceiver of claim 8--.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5-9, 14-17, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Beukema et al (6,128,510), newly-cited.

-Regarding to claim 1, see figures 4-6 and col. 4, line 49 to col. 7, lines 63, Beukema et al discloses a wireless transceiver (see figure 4) comprising:

- a base band unit (30, 32);
- a radio frequency unit (34); and
- a wireless link (comprising (31)) for wirelessly coupling the baseband unit with the radio frequency unit.

-Regarding to claim 2, Beukema et al discloses that the base band unit comprises a transmitter-receiver (comprising (46, 50, 48, 51) (see figure 5)) for supporting the wireless link (see col. 5, lines 1-47).

-Regarding to claim 3, Beukema et al discloses that the transmitter-receiver comprises a broadcast transceiver having a broadcast antenna (48) (see figure 5).

Art Unit: 2618

-Regarding to claim 8, Beukema et al discloses that the radio frequency unit comprises an RF antenna (70) for supporting the wireless link (see figure 6, col. 6, lines 3-49).

-Regarding to claim 14, as similarly applied to claims 1-3, 8, set forth above and herein incorporated, see figures 4-6 and col. 4, line 49 to col. 7, lines 63, Beukema et al discloses a base transceiver station (see figure 4) comprising: a base band unit (30, 32); a radio frequency unit (34) having at least one radio (34); and a wireless link (comprising (31)) for wirelessly coupling the baseband unit with the radio.

-Regarding to claim 15, Beukema et al discloses that the wireless link wirelessly couples an RF section (comprising (70, 72, 69, 96) (see figure 6) of the radio with the at least one base band unit.

-Claim 16 is rejected with similar reasons set forth for claim 2.

-Claim 17 is rejected with similar reasons set forth for claim 3.

-Regarding to claim 20, Beukema et al discloses the radio comprises an RF antenna (70) (see figure 6) for supporting the wireless link wherein the antenna is operable in frequency range of 900 MHz (see col. 6, line 3 to col. 7,

Art Unit: 2618

lines 30), and therefore the antenna is capable to support a data rate of 100 Mbps.

-Claim 9 is rejected with similar reasons set forth for claim 20.

-Regarding to claim 5, see figures 4-6 and col. 4, line 49 to col. 7, lines 63, Beukema et al discloses a wireless transceiver (see figure 4) comprising:

a base band unit (34, 40);

a radio frequency unit (32); and

a wireless link (comprising (31)) for wirelessly coupling the baseband unit with the radio frequency unit,

wherein the base band unit comprises a transmitter-receiver (comprising (70, 72, 69, 96) (see figure 6)) for supporting the wireless link (see col. 6, lines 3-49); and

wherein the base band unit comprises a multi-headed interface antenna (70, 71) (see figure 6) for supporting the wireless link (see col. 6, lines 30-49).

-Regarding to claim 6, Beukema et al discloses that the multi-headed air interface antenna comprises one antenna head per sector (see figure 6).

Art Unit: 2618

-Regarding to claim 7, Beukema et al discloses that the multi-head air interface antenna supports the wireless link wherein the antenna is operable in frequency range of 900 MHz (see col. 6, line 3 to col. 7, lines 30), and therefore the antenna is capable to support a data rate of 100 Mbps.

-Regarding to claim 19, see figures 4-6 and col. 4, line 49 to col. 7, lines 63, Beukema et al discloses a base transceiver station (see figure 4) comprising: a base band unit (34, 40); a radio frequency unit (32) having at least one radio (32); and a wireless link (comprising (31)) for wirelessly coupling the baseband unit with the radio, wherein the base band unit comprises a transmitter-receiver (comprising (70, 72, 69, 96) (see figure 6)) for supporting the wireless link, and wherein the base band unit comprises a multi-headed air interface antenna (70, 71) (see figure 6) for supporting the wireless link, the multi-headed antenna having one antenna per sector, the antenna operable in frequency range of 900 MHz (see col. 6, line 3 to col. 7, lines 30), and therefore capable to support a data rate of 100 Mbps.

*Allowable Subject Matter*

5. Claims 4, 10-13 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Response to Arguments*

6. Applicant's arguments filed on 12/13/06 have been fully considered.

Claims 4, 10-13 and 18 are now indicated allowable set forth above.

However, claims 1-3, 5-9, 14-17, 19 and 20 are deemed not allowable because of reasons set forth above in this Office Action.

*Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanh D. Phu whose telephone number is (571)272-7857. The examiner can normally be reached on M-Th from 7:00-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571) 272-

Art Unit: 2618

4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sanh D. Phu  
Examiner  
Division 2618

SP

2/5/07

